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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,583	01/16/2001	Wilhelmus Diepstraten	21-10-8	4304

7590 07/28/2004	EXAMINER
AGERE SYSTEMS INC. P.O. BOX 614 BERKELEY HEIGHTS, NJ 07922-0614	MACE, BRAD THOMAS

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/760,583	DIEPSTRATEN ET AL.
	Examiner	Art Unit	
	Brad T. Mace	2663	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-15_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-15_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _16 January 2001_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All   b) ☐ Some * c) ☐ None of:
       1. ☒ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____.
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
          application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _2_.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Oath/Declaration

1.   The oath or declaration is defective. A new oath or declaration in compliance

with 37 CFR 1.67(a) identifying this application by application number and filing date is

required. See MPEP §§ 602.01 and 602.02.

> The oath or declaration is defective because:
> Non-initialed and/or non-dated alterations have been made to the oath or
> declaration. See 37 CFR 1.52(c).

Specification

2.   Applicant is reminded of the proper language and format for an abstract of the
disclosure.

The abstract should be in narrative form and generally limited to a single
paragraph on a separate sheet within the range of 50 to 150 words. It is important that
the abstract not exceed 150 words in length since the space provided for the abstract
on the computer tape used by the printer is limited. The form and legal phraseology
often used in patent claims, such as "means" and "said," should be avoided. The
abstract should describe the disclosure sufficiently to assist readers in deciding whether
there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information
given in the title. It should avoid using phrases which can be implied, such as, "The
disclosure concerns," "The disclosure defined by this invention," "The disclosure
describes," etc.

The word "comprising" should be restated as "including".

3.   The disclosure is objected to because of the following informalities: please

remove the foreign priority clause on lines 3-4 of pg. 1. Appropriate correction is

required.

4.   The disclosure is objected to because of the following informalities:

"synchronisation" should be "synchronization" on line 31 of pg. 5. "behaviour" should be

"behavior" on line 30 of pg. 6. The term "frames" or "data frames" should be restated as

"smaller packets" or "mini-packets" for example throughout the specification.

Appropriate correction is required.

Drawings

5.   The drawings are objected to under 37 CFR 1.83(a) because they fail to show

wording (labels) describing the components in each figure as set forth in the

specification. Any structural detail that is essential for a proper understanding of the

disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected

drawing sheets are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the figures

appearing on the immediate prior version of the sheet, even if only one figure is being

amended. The figure or figure number of an amended drawing should not be labeled as

"amended." If a drawing figure is to be canceled, the appropriate figure must be

removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several

views of the drawings for consistency. Additional replacement sheets may be

necessary to show the renumbering of the remaining figures. The replacement sheet(s)

should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so

as not to obstruct any portion of the drawing figures. If the changes are not accepted by

the examiner, the applicant will be notified and informed of any required corrective

action in the next Office action. The objection to the drawings will not be held in

abeyance.

Claim Objections

6.   Claims 1, 3-5, 9, 11, and 13 are objected to because of the following

informalities: the term "frames" or "data frames" should be restated as "smaller packets"

or "mini-packets" for example throughout the claims listed above. Appropriate

correction is required.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 1-3, 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 5,696,903 (Mahany) in view of U.S. Patent No. 5,912,921 (Warren

et al.).

Regarding claims 1, 11, 13:

9.   Manhany discloses a method (and device that transmits and receives, see Figure

1c, reference "MCD" transmits to reference "P" and receives from reference "P", so that

"P" can communicate with the network) for communicating at least one packet of data

with a predetermined packet size (col. 15, lines 28-38, a maximum packet length of 256

bytes (predetermined packet size) over a communication channel from a transmitter

(device) to a receiver (second device) (see Figure 1c, references "MCD" and "P" and

the communication channel between). Manhany discloses fragmenting (thus by means

of a processor) the at least one packet into a number of frames (fragments) with a

predetermined size for transmitting (col. 19, lines 1-4, maximum fragment payload of

256 bytes (predetermined size)). Manhany discloses automatically selecting a

combination of frame size and one of the common set of data rates(thus by means of a

processor) (col. 22, lines 59-61, to determine whether to transmit a fragment at the high

rate or the low rate) such that the transmission time of each of the frames is limited to a

predefined value (col. 22, lines 61-65, high and low rate maximum fragment lengths are

the same duration (predefined value)). Manhany discloses transmitting each frame

(fragment) over the communications channel by the transmitter (thus by means of a

processor) (col. 19, lines 4-8, fragments may be any length up the maximum,

eliminating the inefficiency that results when messages that are not integer multiples of

the fragment length are transmitted (by the transmitter) in systems that employ fixed

sizes). However, Manhany does not disclose expressly a memory for storing a common

set of data rates.

Warren et al. discloses a transmitter having a memory connected to a processor

(see Figure 2, references 31 and 35) for storing a common set of data rates (see Figure

2, reference 11 (network master is a transceiver, thus has a transmitter), and reference

35 (memory), and col. 4, lines 33-39).

A person of ordinary skill in the art would have been motivated to employ Warren

et al. in Manhany in order to obtain the memory that stores a set of data rates. At the

time the invention was made, therefore, it would have been obvious to one of ordinary

skill in the art to which the invention pertains to combine Warren et al. with Manhany

(collectively Manhany-Warren et al.) to obtain the invention as specified in claim 1. The

suggestion/motivation to do so would have been to store the set of data rates in the

transmitter so as to allow for quick data rate changeover in fallback situations where

only particular data rates (as the ones stored in memory) are to be used. (Also, this

method can be taken and executed in terms of a computer program).

Regarding claim 2:

10.   Manhany further discloses that the predefined value of transmission time is

determined by characteristics of interference in the communication channel (col. 25,

lines 28-31, the duration may be reduced to compensate for frequency of interference

bursts).

Regarding claim 3:

11.   Manhany further discloses that the combination of frame size and data rate is

changed dependent on the condition of the communication channel (col. 22, lines 57-

61, the poll recipient evaluates signal quality (condition of the communication channel),

Received Signal Strength Indicator, to determine whether to transmit a fragment at the

high rate or the low rate).

12.   Claims 4-9, 12, and 14-15 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Manhany-Warren et al. as applied to claim 3 above, and further in

view of the admitted prior art.

Regarding claim 4:

13.   Manhany-Warren et al. discloses substantially all the claimed modified invention

as set forth above. However, Manhany-Warren et al. does not discloses expressly that

the condition of the communication channel is determined based on success of

transmission of each of the frames.

The admitted prior art discloses that in normal operation according to the IEEE

802.11 standard, a retransmission will be attempted when no acknowledgement is

received from the receiver for sending the data frame or packet. After a number of

retries, it is assumed that the communication channel is unsuited for transmission (lines

15-24 of pg. 10).

A person of ordinary skill in the art would have been motivated to employ the

admitted prior art in Manhany-Warren et al. in order to obtain a way of determining the

condition of a communication channel. At the time the invention was made, therefore, it

would have been obvious to one of ordinary skill in the art to which the invention

pertains to combine the admitted prior art with Manhany-Warren et al. (collectively

Manhany-Warren et al.-admitted prior art) to obtain the invention as specified in claims

1, 2, 3, and 4. The suggestion/motivation to do so would have been to use the

transmission of the frames to evaluate whether or not a communication channel is

suitable to be transmitted on.

Regarding claim 5:

14.   Manhany further discloses that the success of transmission of each of the frames

is determined after a predetermined number of retries (col. 19, lines 50-54, Control

Point device may suspend attempts to communicate with the device based upon a retry

limit (predetermined number of retries)).

Regarding claim 6:

15.   Manhany further discloses that the predetermined number of retries is at least

two (col. 19, lines 50-54, after a fragment is transmitted more than once (at least two)

without successful reception, attempts to communicate with the device may be

suspended).

Regarding claims 7, 8:

16.   Manhany further discloses that the predefined value of the transmission time is

4.5 msec (or 1.5 msec) (col. 22, lines 61-65, high and low rate maximum fragment

lengths are the same duration, thus the duration is specified to any transmission time

that yields the same duration of high and low rate maximum fragment lengths, a chosen

transmission time of 4.5 msec or 1.5 msec can therefore be used).

Regarding claim 9:

17.   Manhany further discloses that the frame size is one of a set of frame sizes

comprising 1500 bytes, 750 bytes, 500 bytes, 256 bytes and 128 bytes (col. 22, lines

61-63, fragment lengths are selected such that high and low rate maximum fragment

lengths are the same duration, thus the fragment size is specified to any size that yields

the same duration of high and low rate maximum fragment lengths, a chosen byte size

of 1500, 750, 500, 256, or 128 can therefore be used).

Regarding claims 12, 14, 15:

18.   Manhany further discloses a processor (Control Point device) in which the

processor (Control Point device) is arranged to execute the method according to claim 6

(col. 19, lines 45-54, in correspondence with claims 1, 3-6 explanations as set forth

above and in view of the modified invention as set forth in claim 11). (The

correspondence to claim 2 (that was not previously mentioned above), Manhany states

if for some reason a fragment is not successfully received (such as interference), the

length field would remain fixed at the previous value, prolonging reservation of the

channel for the duration (transmission time) of the message). (Thus processor is

arranged to execute the method according to claims 1-6). (Also, this method can be

taken and executed in terms of a computer program, which is executed on a data carrier

(computer)).

19.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Manhany-Warren et al.-Ito et al.-admitted prior art as applied to claim 6 above, and

further in view of Andren et al.

Regarding claim 10:

20.   Manhany-Warren et al.-admitted prior art discloses substantially all the claimed

modified invention as set forth above. However, Manhany-Warren et al.-admitted prior

art fails to disclose expressly that the common set of data rates comprises data rates of

11 Mbit/s, 5.5 Mbit/s, 2 Mbit/s, and 1 Mbit/s.

Andren et al. discloses a transceiver in accordance with the IEEE 802.11

standard (col. 6, lines 9-11) and can achieve the standard data rates of 1, 2, 5.5, and 11

Mbit/s (col. 10, lines 11-21).

A person of ordinary skill in the art would have been motivated to employ Andren

et al. in Manhany-Warren et al.-admitted prior art to obtain a transmitter that can support

data rates of 1, 2, 5.5, and 11 Mbit/s. At the time the invention was made, therefore, it

would have been obvious to one of ordinary skill in the art to which the invention

pertains to combine Andren et al. with Manhany-Warren et al.-admitted prior art

(collectively Manhany-Warren et al.-admitted prior art-Andren et al.) to obtain the

invention as specified in claims 1, 2, 3, 4, 5, 6, and 10. The suggestion/motivation to do

so would have been to use data rates specified by the IEEE 802.11 standards.

Conclusion

21.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

> *Chen et al. discloses a burst duration assignment based on fading
>
> fluctuation and mobility in wireless communication systems.
>
> *Kim et al. discloses a common channel communication device and
>
> method supporting various data rates in a mobile communication
>
> system
>
> Yano et al. discloses a data communication apparatus and method
>
> *Bing discloses a measured performance of the IEEE 802.11 Wireless
>
> LAN.
>
> *Ito discloses an information transmission reception system and
>
> information transmission reception method, and information
>
> receiver used therein

22.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brad T. Mace whose telephone number is (703)-306-

5454. The examiner can normally be reached on M-F, with the exception of every other

Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on (703)-305-4798. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

btm

Brad T. Mace
Examiner
Art Unit 2663

btm
July 14, 2004

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SUPERVISORY PATENT EXAMINER
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